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Corruption

When the Lights Go Out

The Impact of Corruption on the Electricity Supply in Sub-Saharan Africa

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More than half of the population in Sub-Saharan Africa has no access to electricity. This is partly due to endemic corruption, the cost of which hampers the expansion of energy infrastructure. In the fight against corruption, it is vital to strengthen good governance and build effective, accountable state institutions as set out in Goal 16 of Agenda 2030.

Introduction

Corruption is considered "the single greatest obstacle to economic and social development" throughout the world.[1] Estimates show that the financial damage suffered by the world's poorest countries owing to bribery and other forms of unfair advantage, is ten times higher than the total amount of development aid disbursed.[2] With sad regularity, statistics reveal that the Sub-Saharan Africa region occupies first place when it comes to worldwide corruption. According to Transparency International's latest Corruption Barometer, ten of the world's 20 most corrupt countries are located in Sub-Saharan Africa.[3] This is consistent with the results of similar statistics, such as the World Bank Enterprise Survey.[4]

It is reasonable to assume that countries with high levels of systemic corruption[5] will experience corruption in the energy supply sector, too.[6] In addition, the energy sector in Sub-Saharan Africa is prone to an exceptionally frequent amount of corruption payments compared to other sectors. Hence, it is hardly surprising that 23 per cent of Sub-Saharan Africans claim to have paid bribes[7] in the last twelve months in order to secure their access to utility services such as electricity and water.[8] In addition to this kind of petty corruption, illegal cash also flows into the investment sector, sometimes to the tune of several million. Regardless of whether it is on a large scale or simply affects end users, the fact that so many people in Sub-Saharan Africa still have no access to electricity is partly due to endemic corruption, the cost of which hampers investments to expand the energy infrastructure. According to estimates by the International Energy Agency (IEA), 590 million people in Sub-Saharan Africa, i.e. some 57 per cent of the population, still have no access to electricity. This means that Sub-Saharan Africa has the world's largest supply gap, and the IEA expects it to widen even further. By 2030, around 90 per cent of the world's population with no access to electricity will be living in Sub-Saharan Africa.[9] This adversely affects health, education, and life expectancy, and thus significantly increases the indirect costs of corruption. This lack of a reliable and affordable energy supply stunts the economic growth that Sub-Saharan African countries so urgently need, and this lack of economic opportunities is the main motivation for migration within the African continent and abroad.[10]

Corruption in the Electricity Sector: Potential for Illicit Cash Flows at the Highest Level

Corruption in the electricity sector can take place at the highest level of government, for instance when investments in energy infrastructure are taking place. Firstly, the sheer scale of these investments makes Sub-Saharan Africa's energy sector vulnerable to illegal payments. Investment in the electricity infrastructure generally constitutes large projects worth several hundred million euros along with highly complex tendering procedures. This provides a number of opportunities for manipulation, such as in the area of labour and material costs. Furthermore, maintenance expenses can be overestimated and these additional costs hidden in the overall cost estimate.

Proving that an estimate price has been inflated by a few million for design or maintenance, with

money flowing back to the person who awarded the contract in form of kickbacks, is no easy task. Moreover, many African countries lack the necessary independent regulatory authorities and expertise in order to handle these kinds of complex tenders or to accurately estimate the price of large-scale projects. As a result, the cost of completing projects is regularly higher than originally estimated, with additional costs potentially indicating that illicit payments were made in the course of the project.[11]

For example, in July 2019 Kenya's Finance Minister Henry Rotich was arrested on more than ten charges of embezzlement. It was alleged that illegal payments were made in connection with the construction of a hydropower plant. The Ministry of Finance had estimated the cost to be 607 million US dollars; however, the approved contract value was merely 450 million US dollars. It is reported that more than 200 million US dollars have already been spent on the project, but there is still no sign of the hydropower plant.[12]

Everyday Corruption and Public Acceptance of Corrupt Practices

However, corruption is not merely restricted to large-scale illicit payments in the context of investment and contracts. Petty corruption is also prevalent in relations between utility company employees and consumers. For example, employees on-site may be given small bribes to tamper with meter readings or bills, or even to take the electricity meter out of service so that users pay nothing for their electricity. This type of petty corruption is rarely reported, but even these small amounts add up and cause considerable damage. They deprive energy suppliers of the money needed to maintain and repair transmission networks and power plants. While experts estimate corruption in the energy investment sector in developing nations to cost around eight billion US dollars each year, the industry loses some 33 billion US dollars through bill tampering and electricity theft in connection with corrupt practices.[13] In many cases, this sum would suffice for closing gaps in the electricity supply and upgrading inefficient transmission networks.

The extent of this daily, petty corruption, often played down as mere bribery, is a striking demonstration of how corruption has permeated everyday life in Sub-Saharan Africa.[14] It is, therefore, worth observing the social and societal factors that favour corruption in the electricity sector. This may help to understand the large

Out of reach: Almost half of the population of Sub-Saharan Africa has no access to electricity.
Source: © Mike Hutchings, Reuters.

scale of corruption without legitimising or justifying corrupt practices in any way.

The governments of many Sub-Saharan African nations benefit from capitalising on the realisation of infrastructure projects, while the public remains unaware that the state has a duty to provide energy infrastructure. This allows politicians to kill two birds with one stone: they sell the project's completion as a political success while simultaneously lining their own pockets.

What is more, many people do not differentiate between energy infrastructure and private

electricity consumption, with many parties reflecting this perception in their political campaigns.[15] This leads people to view electricity as a public good, therefore promoting the idea that it should be provided at very low cost or, even better, free of charge.

The absence of regulatory mechanisms favours a state monopoly.

On the other hand, the state monopoly of the electricity sector prevailing in many countries could also be responsible for the perception of electricity as state property.[16] Many Africans have a negative view of the state and government, with more than half the population considering the political elite to be corrupt.[17] If the state is perceived to be exploitative and unjust, then many people regard the corrupt practices that result in electricity theft as simply taking what is theirs.

Ultimately, the social risks of corruption in the electricity sector are minimal. The complexity of the investments described above and the lack of control mechanisms mean there is little risk of discovery, which may in turn provide an incentive for illegal actions.

The Nature of Africa's Energy Supply Facilitates Corruption

In the African context, the high cost of constructing power grids often means only the state is able to make these investments, and hence assumes a natural monopoly position. At the same time, operating costs tend to be low, so the holder of this natural monopoly can satisfy the overall demand more cheaply than other suppliers. The reason for this is that establishing parallel transmission networks does not pay off. However, an absence of regulatory mechanisms to ensure free and fair competition bears the risk of states abusing their monopoly position and denying private energy suppliers access to the market. In addition to the power grid, supplying electricity depends on two other, technically separate, elements: electricity generation and electricity sales. The latter are lucrative areas for private suppliers, too. However, in many Sub-Saharan African countries, these three activities are carried out by vertically integrated state monopolies. In 2014, in 21 out of 48 countries in this region, all three elements of the power supply were completely government-controlled with no involvement from private companies.[18] This monopoly facilitates opportunities for dishonest personal gain.

In terms of the overall budget, state-owned electricity companies are of vital importance in many Sub-Saharan nations. Conversely, however, this also means that the potential harm inflicted upon the state by corruption in these utility companies not only affects its energy supply, but has serious repercussions on the national budget as well.

Investments in the electricity infrastructure come from state coffers. In fact, in Sub-Saharan African countries where the level of electrification is low, this kind of investment is explicitly expected. Energy security is a key policy objective, however, the level and benefits of investment in large parts of the region are seldom subject to scrutiny as few institutions are in a position to hold the government accountable for the allocation of investments. It also means there are rarely functioning regulatory authorities or supervisory bodies with the ability to examine the meaningfulness and necessity of subsequent cost increases. On the other hand, financial difficulties are conveniently avoided by dipping into the public purse when additional costs arise.

Moreover, the sheer volume of investment is seen as an indicator of success, without the need to track whether investments improved the population's access to electricity or the quality of the electricity supply. This inadequate performance monitoring may even increase corruption because the more money a government spends, the more it can create the

impression that it looks after its citizens' needs. State monopolies also make it extremely difficult for consumers to find another supplier due to poor supply services.

In Sub-Saharan Africa, the level of investment is often perceived as an indicator for success in achieving the political goal of "energy security".

The consequences of corruption within the state's electricity monopoly are clear to see in the example of South Africa's publicly owned electricity supplier *Elektrisiteitsvoorsieningskommissie* (Eskom). This company holds the monopoly as it supplies roughly 90 per cent of the country's power. Earlier this year, South Africa – despite being a member of the G20 group of leading industrial nations and emerging economies – was subjected to load shedding (scheduled power outages). This was attributable to a delay in commissioning two new power plants, which, even before construction was completed, were twice as expensive as originally planned. At the heart of the Eskom crisis lies the Gupta family, who secured a refinancing of their power plants by the African National Congress (ANC) government under former President Jacob Zuma involving highly lucrative purchasing guarantees. This powerful family with its extensive business interests owns the mines that supplied the overpriced coal. Eskom's largest item of expenditure is the procurement of primary energy. Gupta coal doubled in price from the equivalent of twelve US dollars per tonne in 2011 to the equivalent of 26 US dollars in 2017. During the same period, electricity prices in South Africa rose by more than 400 per cent, while the country's energy supply deteriorated. For years, the family have been securing lucrative contracts to purchase coal – contracts that were never put out to public tender. The government suspended independent experts who criticised the quality of the coal. The fact that the agreed quantity of coal was not delivered to power stations merely exacerbated the aforementioned supply bottlenecks. The Gupta network, together with the willingness of members of the ANC government to engage in corruption, even went so far as to systematically undermine governing and supervisory bodies by allocating key positions to corrupt officials. This opened the door to widespread corruption at the highest level and throughout the whole of the state-owned company Eskom.[19] The current situation in South Africa has been dubbed as state capture.

Recently, Eskom announced a loss for 2018/2019 that was 800 per cent higher than last year's (reported) loss. Against this background, rating agencies believe Eskom, with a debt that corresponds to some 15 per cent of the national budget, poses the biggest risk to the South African economy. As is often the case, the costs are being externalised: Eskom recently asked the state regulatory authority to approve a 17 per cent hike in electricity prices.

Privatisation of the Electricity Market in Sub-Saharan Africa: a Blessing or a Curse?

Almost half of the population of Sub-Saharan Africa has no access to electricity, and in 13 countries, more than 75 per cent of the population live without electricity. The only way to close this enormous supply gap is through private investment, which is why independent power producers (IPPs) have been increasingly penetrating the African market over recent years. IPPs are private operators of power plants that generate electricity and feed it into the national grid. They either directly sell it to end users (with the state being paid a fee for the use of the transmission lines), or they receive a set feed-in tariff directly from the state. IPPs play a vital role in supplying electricity to African countries, however, partnerships between government and IPPs can have devastating consequences unless the appropriate framework is in place. The example of Tanzania provides a worst-case scenario, as strikingly portrayed by the Africa Research Institute.[20]

The energy plan announced by the Tanzanian government in the 1990s envisaged that natural gas should play a more dominant role in the country's future power supply to reduce dependence on unreliable hydropower and costly diesel fuel. When the country was hit by an acute energy crisis in 1994, the government received an offer from the Malaysian investor *Mechmar* to supply power at short notice by constructing a power plant – despite the fact that the government had not put the construction of a power plant out to tender and that the power plant was to be run on imported diesel fuel thus contravening the agreed energy plan. One year later, even though the energy crisis had been alleviated, the Tanzanian government still signed a 20-year power purchase agreement with *Mechmar* that provided for state-guaranteed purchase prices. Already at that early stage, it was clear that *Mechmar* had managed to wrest a ruinous, uneconomical agreement from the state-owned Tanzania Electric Supply Company (TANESCO), which produced overpriced electricity using overpriced imported fuel. Furthermore, the power plant

By candlelight: Electricity prices in South Africa rose by more than 400 per cent, while the country's energy supply deteriorated. Source: © Mike Hutchings, Reuters.

used cheaper generators than originally agreed, leading to shortfalls in energy generation. A string of disputes meant that the power plant – which was supposed to supply energy in a timely manner – was not connected to the grid until seven years later. During the judicial investigations that continued until 2017, it came to light that *Mechmar* and its local partners had overcome ministry resistance by paying out millions in bribes. In 2006, the drama unfolded a second time with the signing of a non-transparent, ad-hoc contract in order to combat an acute energy crisis. Once again, the commissioning of the power plant, which supplied overpriced electricity against government guarantees, was delayed. Shortly afterwards, it emerged that the private investor had no experience whatsoever in electricity generation and that the considerable delays in completion resulted from the operator's inexperience. It was the people of Tanzania who bore the brunt of the disaster, and who then had to suffer soaring energy prices and power cuts for many years. The Africa Research Institute estimates the direct damage of the IPP disaster alone to be in the region of 1.5 billion US dollars. TANESCO is also under permanent threat of insolvency and needs regular injections of cash from the government. The indirect costs include lost chances for growth and missed opportunities to improve citizens' quality of life.

The cooperation between state-owned and private companies to close supply gaps is not easy.

This is a striking example of how a lack of transparency and poor planning in private power procurement can have far-reaching and lasting consequences.[21] Without fair and transparent competition, accurate project planning is difficult, if not impossible, leaving it open to operational risks. Internal costs are externalised – in the case of the electricity sector by increasing prices. This is another reason why corruption is so widespread in this sector.

Tanzania is not the only country that allows IPPs to sign direct agreements with governments. In Sub-Saharan Africa, in fact, more IPP agreements are signed through direct negotiations with governments than through fair competition procedures. In most of these cases, suppliers directly approach the government without a tendering process.[22]

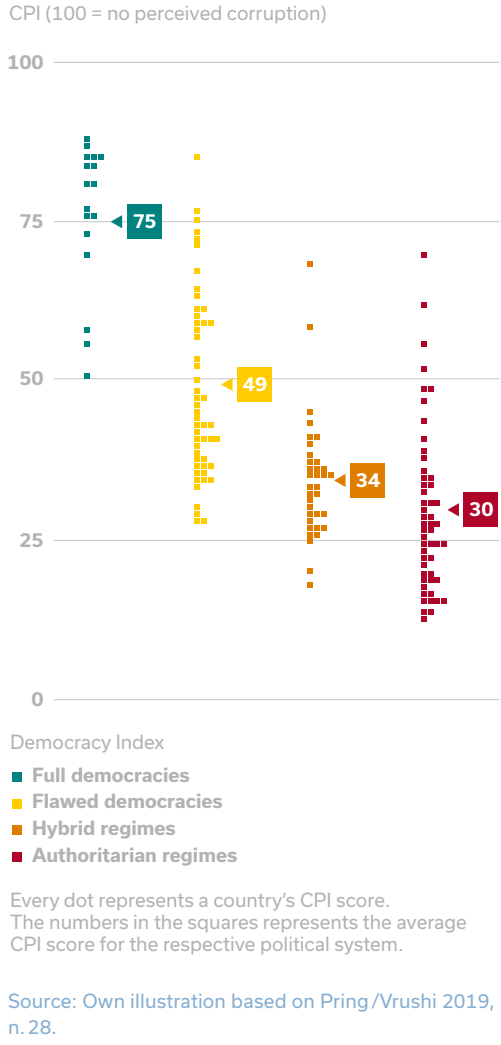
The Impact of Corruption in the Electricity Sector on Sub-Saharan Africa

Corruption has a devastating effect on the energy supply. According to estimates, the total damage caused by corruption in the energy sector in developing nations worldwide amounts to some 41 billion US dollars each year.[23] One of the direct consequences of this is the lack of investment in network maintenance, which on average cuts total electricity output in Sub-Saharan Africa in half.[24]

Therefore, it is hardly surprising that there is a direct link between corruption and efficiency in the electricity sector: less corruption in a country means a more efficient power grid and lower losses in electricity transmission.[25] Numerous studies have also demonstrated the positive correlation between a reliable, affordable, and stable electricity supply on the one hand, and economic and social growth on the other. Access to energy not only brings economic opportunities, but also leads to reduced child mortality, improved primary health care and better access to education. Corruption, on the other hand, means wasted resources and inefficiency. Corruption in the energy sector also represents a business risk that discourages many private investors. In Sub-Saharan Africa, 80 per cent of the electricity supply continues to be state-owned, while in OECD countries public ownership stands at around 50 per cent.[26] Nevertheless, private investment in the energy sector is vital in order to achieve electrification across the whole of Africa, and to ensure that opportunities for economic and social development are not wasted. Transparency, an independent judiciary, efficient and effective state institutions and the responsible handling of political power are all criteria that characterise

good governance, but they are in short supply in the energy sector in Sub-Saharan Africa.[27] If these criteria were enforced, they would play an effective part in the fight against corruption, make the sector more attractive to foreign investment, and result in profits being invested in the maintenance and improvement of grids and lines. Regulatory instruments also need to be strengthened in order to combat corruption in the energy sector. Specifically, this includes ensuring greater transparency in the tendering process with an independent evaluation of bids, clear criteria for awarding contracts, independent monitoring of project implementation and accurate costing of major infrastructure projects. Clear rules need to be adopted to prevent corruption and their implementation monitored by independent institutions and regulatory authorities.

Fig. 1: Corruption Perceptions Index (CPI) compared to Democracy Index 2018



Every dot represents a country's CPI score.
The numbers in the squares represents the average CPI score for the respective political system.

Source: Own illustration based on Pring/Vrushi 2019, n. 28.

More Democracy for a Better Electricity Supply

The example of corruption in the electricity sector and its repercussions in Sub-Saharan Africa show that corruption is widespread where weak institutions and poor governance prevail, and where there are no independent control mechanisms to monitor government actions efficiently and effectively. The state often has a monopoly, not only in all areas of energy supply, but also in the political opinion forming process. As a result, the government does not need to fear that misconduct and poor utility services will have consequences at the ballot box.

Corruption and inefficiency in the public sector are, therefore, not the cause of poor energy supply; corruption and inefficiency are symptoms of poor governance and weak institutions. It is no coincidence that there is a negative correlation between countries with poor governance and levels of corruption, as is shown by analysing the data in the Transparency International Corruption Index and the 2018 Democracy Index.[28]

At the same time, there is a connection between the quality of democracy and access to electrification: the more effectively democratic processes and institutions function, the more successful nationwide electrification has been in Sub-Saharan Africa and the narrower the gap between urban and rural access to electricity.[29]

If corruption in the energy sector is to be curbed and effectively countered, it is important to address the causes. This is clearly enshrined in Agenda 2030, and more specifically in Goal 16 of the UN Sustainability Agenda. Goal 16 stresses the need to strengthen democratic institutions, to promote good governance and transparency in the public sector, and hence effectively

contributing towards the fight against corruption. Some of the aspects that may improve the quality of democracy include government accountability, freedom of the press, freedom of expression, the ability to participate in political opinion formation, and an independent judicial system. All these issues also have a positive impact on reducing corruption. Only by addressing the root causes of corruption can it be ensured that the energy sector in Sub-Saharan Africa plays its part in allowing everyone to participate in social development and economic growth.

–translated from German–

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